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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,488	03/08/2001	Eiichi Takahashi	1046.1245	2200

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EXAMINER

QURESHI, SHABANA

ART UNIT PAPER NUMBER

2155

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,488

Applicant(s)

TAKAHASHI ET AL.

Examiner

Shabana Qureshi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A. SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

Claims 1-9 are pending in this office action. Claims 10-13 are withdrawn from consideration in response to election made March 8th, 2005.

Applicant's arguments filed 7 July 2004 were considered but were unpersuasive.

Applicant argues the following:

(1) Georgiadis does not teach "recording a maximum size value of the communicate data size" as recited in independent claim 1.

(2) Georgiadis does not teach "judging, if the communication data size of the connection decreases with respect to the recorded maximum size value, that said server is under high load," as recited in independent claim 1.

As per Applicant's first argument, the threshold U1 discussed in paragraph 2 of page 5 of the prior art is used by the load manager illustrated in figure 3 in order to characterize the computer is overloaded (page 5, lines 30-31). U1 is interpreted to be the recorded maximum value as claimed.

As per Applicant's second argument, line 13 of page 5 states "after the threshold U2 is crossed, the throughput decreases." The network load manager provided in figure 3 judges the load of the server based on this rule (page 5, lines 30-31, "the balancer process 28 makes a decision whether one or more of the computers will be characterized as an overloaded computer. Therefore the examiner asserts that the argued limitation is taught in the prior art provided. Also, Georgiadis teaches the management of a the load on a computer as it communicates with other computers, and therefore the examiner interprets the utilization and processing of transactions of the computer of Georgiadis to teach the load the communication of a system of computers (page 4, lines 49-56).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Borella et al (US Patent No. 6,643,259, hereinafter “Borella”).

Regarding claim 1, Borella teaches a network server load detection method comprising:

- monitoring the communication from a client and a server, the communication including at least one connection having a communication data size (column 3, lines 1-15);
- calculating a load of the server based on the communication data size of the connection (column 8, lines 40-42; congestion and size of calculation of the size of congestion window);
- detecting a change in the communication data size of the connection (column 9, lines 43-62; congestion initially set to IW);
- recording a maximum size value of the communication data size (column 9, lines 43-62; cwnd is increased until a maximum cwnd size is reached); and
- judging, if the communication data size of the connection decreases with respect to the recorded maximum size value, that the server is under a high load (column 8, lines 40-47; cwnd size is decreased when congestion is detected).

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As per claim 2, Borella teaches a network server load detection method according to claim 1, further comprising the step of counting the number of connections and the load until a count of communications monitored reaches a monitored communication minimum count and until a count time reaches a monitor minimum time by use of the monitored communication minimum count and monitor minimum time (column 9, lines 43-62).

As per claim 3, Borella teaches a network server load detection method according to claim 1, further comprising the step of recognizing the communications of a start and end of the connection (column 9, lines 43-65; Borella sets IW which is disregarded once communication starts. Borella also teaches that when an unacknowledged communication occurs, the previous value is stored while the new maximum value is neglected. Therefore Borella also neglects the start and end of the connection).

As per claim 4, Borella teaches a network server load detection method according to claim 1, further comprising:

- the step of retaining information of the communication of the start of connection till the connection is ended or established (column 9, lines 43-65);
- the step of detecting the communication of the start of connection for re-connection executed when judging when the client fails to connect on the basis of the information retained (column 9, lines 43-65); and
- the step of setting a rate at which the communication of the re-connection occupies the number of the communications of the start of connection as a load of the server and, if this rate is high, judging that the server is under a high load (column 9, lines 43-65).

As per claim 6, Borella teaches a network server load detection method according to claim 1, further comprising:

- the step of obtaining a sequence number from the communication to the server from the client (column 9, lines 43-65);
- the step of retaining maximum value of the sequence number until the connection is ended since the start of connection (column 9, lines 43-65);
- the step of comparing the sequence number of the communication received with the sequence number retained (column 9, lines 43-65);and
- the step of excluding, if the sequence number obtained from the communication is smaller than the sequence number retained, this communication from counting (column 9, lines 43-65).

As per claim 7, Borella teaches a network server load detection method according to claim 1, further comprising:

- a step of counting, if a sequence number obtained from a communication is smaller than the sequence number retained, the communication data after the executing a weighting process thereon (column 9, lines 43-65), or predicting a communication data size when there is no problem on a route from the two sequence numbers, and counting the predicted data size for detecting the load (column 9, lines 43-65).

Claims 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Leonidas Georgiadis (EP 459,134 A2).

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Regarding claims 8 and 9, Georgiadis teaches a network server load detection method comprising:

- the step of monitoring the communication between a client and a server and the load on the server (page 5, lines 24-30);
- the step of detecting a change in server load, and recording the maximum load (page 5, lines 30-49);
- the step of determining, if the load decreases at the present time with respect to the maximum load, that the server is under a high load (page 5, lines 30-49).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borella et al (US Patent No. 6,643,259, hereinafter "Borella").

As per claim 5, Borella teaches a network server load detection method according to claim 1, further comprising:

- the step of obtaining a distribution of the communication data sizes from the clients (column 8, lines 48-67; column 9, lines 43-65);

Borella does not explicitly state:

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- the step of distinguishing between extremely small pieces of data unrelated to the load of the server from the communication data size distribution; and
- the step of eliminating the extremely small pieces of communication data from the judgment about the load.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate erroneous data not representative of the overall behavior of the system because it would cause a higher standard deviation in the data.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (571) 272-3990. The examiner can normally be reached on Monday - Thursday, 9:30 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shabana Qureshi
Examiner
Art Unit 2155

SQ
30 April 2005


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER